



The Project Lead the Way Pre-Engineering program at Charles Herbert Flowers High School is a model CTE program which partners with colleges and corporations to plan unique activities where students apply academic and technical concepts learned in PLTW courses related to real life situations. Students are involved in mentoring sessions with practicing engineers, STEM competitions, summer camps, work-based learning experiences, college scholarship opportunities, and other extended learning activities focused on providing experiences beyond the PLTW curriculum. These efforts are designed to promote STEM-related interest and encourage students to consider engineering as a viable career.

The Charles Herbert Flowers High School's Project Lead the Way (PLTW) program works closely with its Program Advisory Committee to supplement classroom instruction and give students opportunities to apply what they have learned. These activities include a Networking Event where students interact with Engineering professionals; an annual trip to the Missouri University to participate in the Missouri Introduction to Technology and Engineering (MITE) pre-college program; and the Maryland Junior Science and Humanities Symposium at Morgan State University where students present their research findings. In addition, the Materials Research Science and Engineering Center (MRSEC) program at the University of Maryland engages students in classroom inquiry-based activities, hands-on university-based instruction, and summer programs to develop critical-thinking and problem solving skills. These experiences have resulted in Charles Herbert Flowers PLTW students exhibiting the knowledge, confidence, and poise that are testaments to the quality and success of the program.

This outstanding program has been recognized by its partners and companies throughout the state with additional support. For example, Lockheed Martin awarded a \$13,000 grant to the program for resources and technology upgrades. Project Pipeline-a mathematics tutorial and mentoring collaborative effort between the University of Maryland and Lockheed Martin enhances the mathematic skills of PLTW students in preparation for Calculus. The National Action Council for Minorities in Engineering Scholars program provides sponsorship for PLTW students to enroll in Calculus at Prince George's Community College to earn college credit prior to graduating from high school. The PLTW program also received a two-year Lemelson Massachusetts Institute of Technology (MIT) grant that students used to develop a locker sensor for a visually impaired classmate enabling the student to independently locate and open his locker. The continuation grant enabled students to design a system that will galvanize the current county-issued identification system using a radio frequency identification device. Charles Herbert Flowers High School was one of only four schools nationally invited to participate in the Hubble Digital Learning Network Event hosted by the NASA Goddard Space Flight Center. The live broadcast with scientists and astronauts demonstrated the Flowers students' poise and aeronautical knowledge.